

Cost-effective manual wafer probing  
in high-vacuum environment

# PLV50

100 mm Manual Probing System

## Probe Platen

- Contact-separation z-movement for step and repeat capability
- Space for up to six positioners total

## Chuck Stage

- Linear two axis high-precision stage for high throughput
- XY travel up to 100 mm
- Easy to use manipulation from outside the chamber
- Wafer/sample size up to 150 mm
- Optional triax add-on for accurate measurements over chuck

## Positioners

- Inside vacuum chamber for excellent mechanical stability
- Operated from outside
- Linear backlash-free movement
- Reliable and repeatable contact

## Measurement Setup

- Configurations with
  1. Four RF and two DC probes for RF measurements
  2. Four DC probes for I-V measurements
  3. Two DC probes for C-V measurements
  4. Optical fiber
- SIGMA™ integration for excellent measurement accuracy
- Example setup shown with four RF probes

## Chuck Temperature

- Thermal chuck controller ensures accurate temperature range
- Thermal chuck chiller unit for temperature range from -60°C up to +300°C

## Microscope

- Zoom microscope on boom stand with camera and illumination
- Video monitor

## Vacuum Chamber

- Pressure from atmosphere down to high vacuum (10<sup>-5</sup> mbar)
- Hinged chamber lid for easy access
- Space for cabling and additional electronics inside
- DC and RF electrical feed through flanges

## Vacuum Control

- High-vacuum pump unit for pump and controller
- Turbo-molecular pump mounted direct to chamber bottom

## Vibration Isolated Mainframe

- Pneumatic vibration dampening
- Stiff framework and base plate

